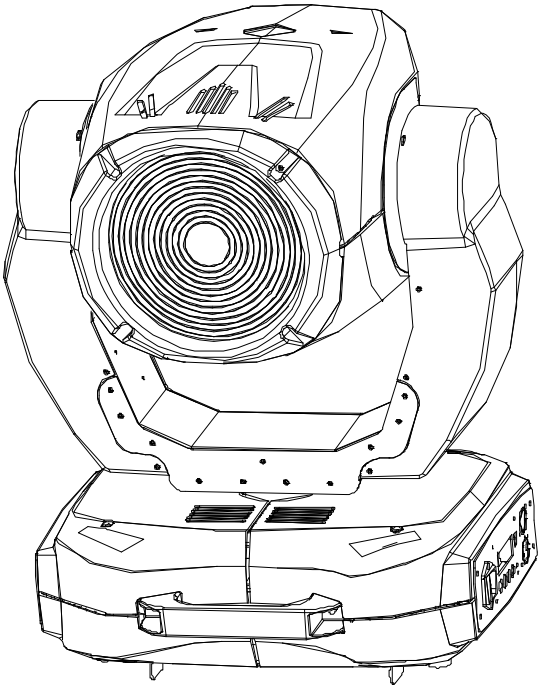
LXE 700 WASH USER MANUAL

(V2.10)



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For your own safety, please read this user manual carefully before installing **LXE 700 Wash.**

Every person involved with the installation, operation and maintenance of **LXE 700 Wash** has to:
-be qualified
-follow carefully the instructions of this manual

Introduction:

Thank you for choosing **LXE 700 Wash**.
When you unpack **LXE 700 Wash,** there should be in the box the fixture, a DMX 5 pin XLR cable, and a safety cable. Please check carefully that there is no damage caused in shipping. If you notice any damage then immediately let your shipper know and the dealer from whom you purchased **LXE 700 Wash**.

Features:

- operation mode is by DMX 512 utilizing (16 channels) or stand alone or sound activation.
- pan and tilt movement :
  - 8 bit and 16 bit resolution for smooth and precise motion
  - pan : 630° rotation / tilt : 265° rotation
  - speed of pan/tilt movement is adjustable
- electronic beam shaping
- strobe/shutter : high speed dual-blade shutter, 0-15Hz or random strobe
- dimmer : mechanical adjustable from 0% to 100%
- color : Full CMY Color mixing system.
  - Also a color wheel 1 has 8 dichroic filters plus white, with rainbow effect
- Full linear Zoom function.
- Color macros. 30 macros.
- auto-program: 8 preprograms can be selected
- display: can be inverted (180)° when **LXE 700 wash** is hung upside down.
- local or remote resetting
- lamp switches ON/OFF locally or remote, motor reset
- auto test for all functions
- value of each DMX-channel can be displayed
- editable program:
  edit and save a program to the “on board flash memory” using either the controls on the front panel or using an external controller like an **Elektralite CP-20.** A maximum 48 scenes/cues/looks can be saved on board. The resultant saved program can be played back from the “run” menu accessed from the front display panel

Safety Instructions.

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual. **LXE 700 Wash** is a high voltage fixture. Be careful when dealing with high voltages.
Please read this manual. If you do not read this manual and damages occur to LXE 700 Wash, then it could void the warranty.
During shipping, **LXE 700 Wash** may have been exposed to high temperature changes or humidity changes. So, as a precaution, do not switch **LXE 700 Wash** on immediately. Condensation can damage **LXE 700 Wash** so leave **LXE 700 Wash** switched off until it has reached room temperature.
The electric connection must be carry out by a qualified person and it is absolutely essential that **LXE 700 Wash** be **grounded**.

Always disconnect **LXE 700 Wash** from the power source, when the device is not in use or before cleaning it. Only unplug **LXE 700 Wash** from the power cord. Never pull out the plug out by pulling on the power cord.
Take care, LXE 700 Wash will heat up when it is turned on and it will be very hot to touch.

Please keep **LXE 700 Wash** away from children and the general public. Please be intelligent and use common sense when operating **LXE 700 Wash.**

General Guidelines.

LXE 700 Wash is a lighting fixture for professional use on stages, in theatres, arenas, churches and so on.
LXE700 Wash should only be operated at 120 volts and only indoors.
LXE 700 Wash should not be operated 24/7 (24 hours a day; 7 days a week). **LXE 700 Wash** needs operation breaks to ensure that it will work for a long time without problems. Please do not shake **LXE 700 Wash** and avoid using brute force when installing or operating it.

When choosing the location to install **LXE 700 Wash**, please make sure that it is not exposed to extreme heat, moisture or dust. The minimum distance between **LXE 700 Wash** and the illuminated surface must be more than 10 feet.

Always mount **LXE 700 Wash** with an appropriate safety cable. If you use the quick lock cam to hang **LXE 700 Wash** please make sure the 4 quick lock fasteners are **locked into position correctly.**

Operate **LXE 700 Wash** only when you are familiar with the features on the fixture. Do not permit operation by persons not qualified for operating it.
All modifications to **LXE 700 Wash will invalidate the warranty. There are absolutely no exceptions.**

If **LXE 700 Wash** is operated in any way different to the one described in this manual, **LXE 700 Wash** maybe damaged and the guarantee will be void.

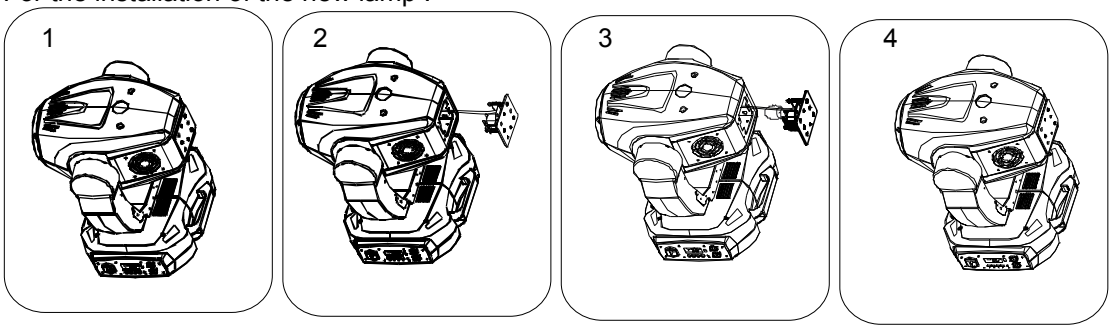
Installation Instructions.

a) Installing or replacing the lamp

Only install the lamp when **LXE 700 Wash** is unplugged from 120 volts.
The lamps must be replaced when it has reached the end of its lamp life or if it is damaged or deformed.

Before replacing the lamp let the lamp cool down. During operation, the lamp can reach very high temperatures.
During the installation of the lamp do **not** touch the glass bulbs with bare hands. Always use a cloth to handle the lamps during insertion and removal.
Do not install lamps with a higher wattage. They generate temperatures higher than **LXE 700 Wash** operating temperature**.**

For the installation of the new lamp :



Please remember the lamp is not hot-restrike. You must wait approximately 10 minutes before you can restrike the lamp.

Do **not ever** operate **LXE 700 Wash** with the cover open. The lamp is a discharge lamp. All discharge lamps, irregardless of the manufacturer or type, are very volatile and can **explode**. Great caution must be exercised when working with these lamps otherwise **serious injury can happen.**

b) Mounting LXE 700 Wash

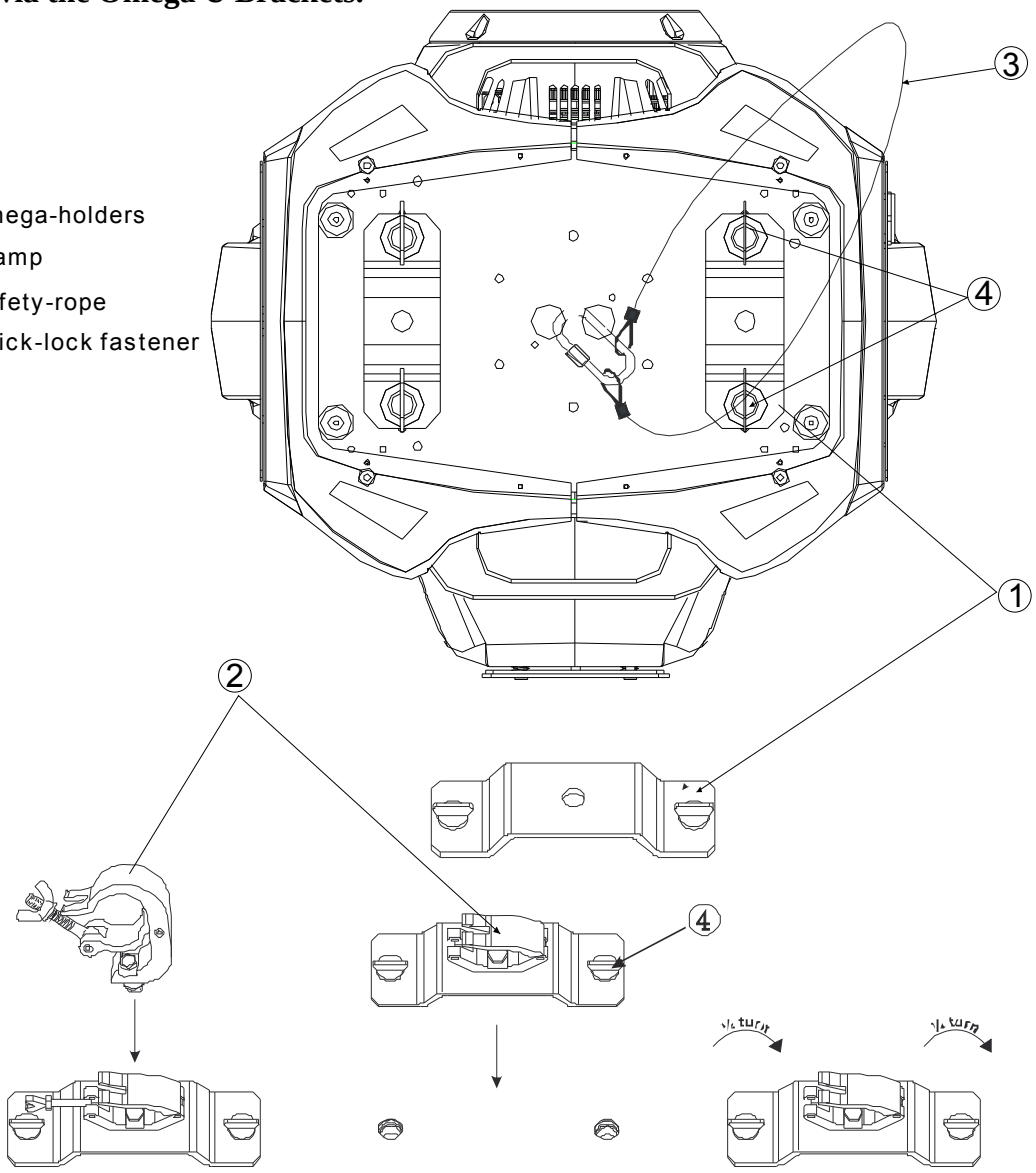
The installation of **LXE 700 Wash** has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any deformation.
The installation must always be secured with a secondary safety device (a safety cable).
Never stand directly below **LXE 700 Wash** when mounting, removing or servicing **LXE 700 Wash**.
The installer should make sure that **LXE 700 Wash** is installed correctly and that the installation is checked by an expert on a regular basis.
If you are a rental house utilizing **LXE 700 Wash**, then use the appropriate half couplers (½ cheeseboros) to secure the fixture to the truss or pipe. Remember to tighten down the cheeseboros before raising the truss. Don't laugh! It has been done before now. Remember with yoke fixtures on a flown truss, when you move them the truss can move too. It's just obeying Newton's third law of motion: "to every action there is an equal and opposite reaction". Please remember this when securing the **LXE 700 Wash** fixture.

Cautions:

LXE 700 Wash should be installed outside areas where people can reach it, walk by it or be seated underneath it when being installed. Overhead mounting requires experience including, amongst other things, calculating the working load limits and installation material being used. Periodic safety inspections should be done of **LXE700 Wash** as the fixture does move. If you do not have the qualifications and experience, do not attempt the installation. Improper installation can result in bodily injury to yourself or others.
Before mounting make sure that the installation area can hold a minimum point load of 10 times **LXE 700 Wash's** weight.
Once installed then connect **LXE 700 Wash** to the correct power source. 120 volts A.C.

Installation via the Omega U Brackets.

(1)Omega-holders
(2)Clamp
(3)Safety-rope
(4)Quick-lock fastener



Screw one clamp (the clamp is not provided with **LXE 700 Wash**) onto each of the two Omega U brackets supplied with **LXE 700 Wash.**
Insert the quick-lock fasteners of the first Omega bracket into the respective holes on the bottom of **LXE 700 Wash**. Tighten the quick-lock fasteners fully clockwise. Install the second Omega U bracket. Please do not use pliers, crest wrenches and the like to turn the quick-lock fastener. If you do, there is very real likelihood that you will break the Omega bracket. (These can be replaced at a substantial cost to your boss!)
Pull the safety cable through the holes on the bottom of the base and over the trussing or any secondary fixing point. Do not clamp the cable to the U bracket or clamp. That is not a secondary safety point.
A secondary safety point is any point that will adequately hold **LXE 700 Wash** if the U brackets, clamps or the fixtures base breaks or fails. Then the safety cable would be the backup and stop the fixture from falling to the ground.

c) Locks for Pan and Tilt.

The **LXE 700 Wash** has two levers for locking the pan and the tilt function. These locks are engaged for shipping.

The locks must be disengaged before turning on the fixture. The Pan lock is located in the middle of the yoke at the base. While the tilt lock is located on one of the arms. The photo below shows the lock and unlock positions. If the fixture is unlocked (and of course the fixture is not powered up) then the pan and tilt will move freely if you push the head. If there is any resistance, recheck that you have unlocked the fixture completely.

DMX-512 Control Connection

Connect the provided XLR cable to the female 5-pin XLR output of your **Elektralite CP 20** or other DMX controller. The other end should be connected to the male 5-pin XLR input of **LXE 700 Wash**. Then daisy-chain out of the first **LXE 700 Wash** and into the next **LXE 700 Wash** or other dmx device. Never **"Y"** split the DMX connection.

If you need more cable, then it should be two core, screened cable fitted with a 5 pin XLR input and output connector. Please refer to the diagram below.

DMX -output
XLR mounting-sockat

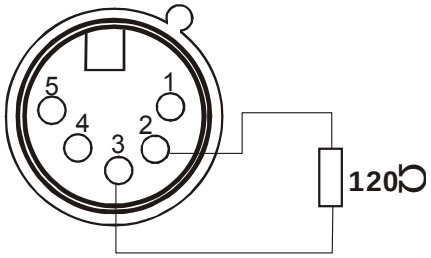
1:Ground
2:Signal(–)
3:Signal(+)
4:N.A.
5:N.A.

DMX -input
XLR mounting-sockat

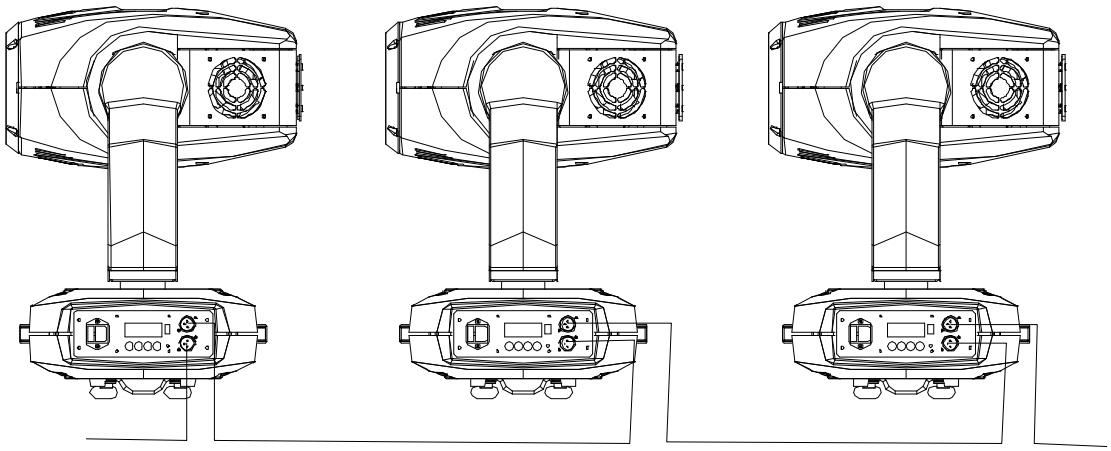
1:Ground
2:Signal(–)
3:Signal(+)
4:N.A.
5:N.A.

DMX-512 connection with DMX terminator

For installations where the DMX cable has to run a long distance or is in an electrically "noisy" environment, it is recommended that a DMX terminator is used. This helps prevent corruption of the digital control signal. The DMX terminator is simply a 5 pin XLR plug (male) with a 120 Ω resistor connected between pins 2 and 3. It is then plugged into the output XLR socket of the last **LXE 700 Wash** or other dmx device in the chain. Please see illustration below.



DMX line



Projector DMX start address selection

All **LXE 700 washes** need be given a DMX starting address when using a DMX signal, so that the correct **LXE 700 Wash** responds to the correct control signals. This digital starting address is the channel number from which **LXE 700 Wash** starts to "listen" to the digital control information sent out from the **Elektralite CP20** or other DMX controller. The allocation of this starting address is done by setting the correct number on the display located on the base of **LXE700 Wash**.

You can set the same starting address for all fixtures or group of fixtures, like all the **LXE700 Washes** in your plot, or you can make different address for each individual fixture.

If you set the same address, all the fixtures will start to "listen" to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set a different address, each unit will start to "listen" to the channel number you have set, based on the quantity of control channels of the fixture. That means changing the settings of one channel will affect only the selected fixture.

In the case of this **LXE 700 Wash**, which is a 24 channel fixture, you should set the starting address of the first unit to 1, the second **LXE 700 Wash** to 25 (24 + 1), the third to 49 (25 + 24), and so on.

Note:

After switching on, **LXE 700 wash** will automatically detect whether DMX 512 data is received or not. If the data is received, the display will show **"A.001"** or whatever the address is set to, like "**A.025"** If there is no data received at the DMX-input, the display flashes **"A001"** with the actually set address. This situation can occur if:

- the 5 PIN XLR plug (cable with DMX signal from the controller) is not connected to the input of **LXE 700 Wash**.

or

- the controller is switched off or defective.

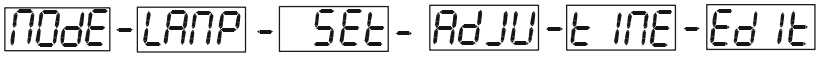
or

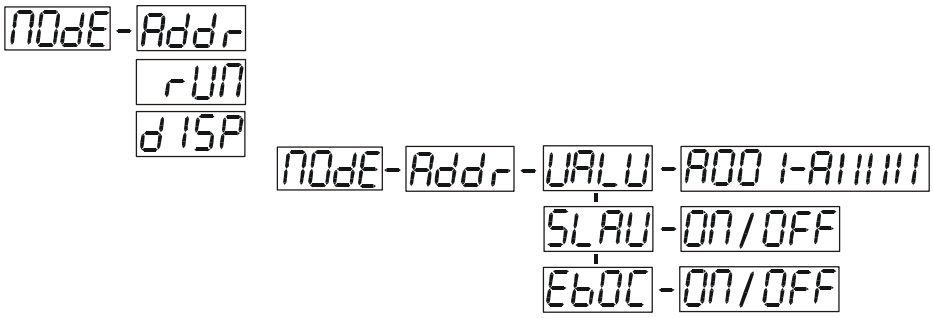
- the cable or connector is defective

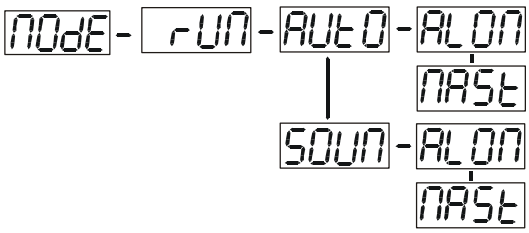
The Display Panel:

Default settings shaded.

0	MODE	ADDR	VALU	A001~AXXX (AXXX)	DMX address setting
			SLAV	SLA1/ SLA2/ SLA3	Slave setting
			EBOC	ON/OFF	Change DMX address via external controller
		RUN	AUTO	ALON (AU-A)	Automatic Run in Stand Alone
				MAST (AU-M)	Automatic Run as Master
			SOUN	ALON (SO-A)	Sound-controlled Run in Stand Alone
				MAST (SO-M)	Sound-controlled Run as Master
		DISP	VALU	D–XX D-00 (DXXX)	Display the DMX 512 value of each channel
			RDIS	ON/OFF	Reverse display
			CLDI	ON/OFF	Shut off LED display
1	LAMP	OPEN	ON/OFF		Lamp on/off
		LAAU	ON/OFF		Lamp automated on with power
		ONLI	ON/OFF		Lamp on/off via controller
		DELA	D–XX D-05		Delay lamp on
2	SET	RPAN	ON/OFF		Pan Reverse
		RTIL	ON/OFF		Tilt Reverse
		16BI	ON/OFF		Switch 16 bit/8 bit
		DEGR	630/540		Pan degree select
		MIC	M-XX		Mic sensitivity
		AUTO	Clos/Hold/Auto/Audi		No DMX Status
		FANS	HIGH/AUTO		Fan's mode select
		SPEE	SP-1/SP-2		Movement Mode Select
		REST			Reset
		LODA	ON/OFF		Restore factory settings
		VER	V-1.0~V-9.9		Software version
3	ADJU	LADJ	ON/OFF		Lamp adjustment
		TEST	T–01~T–30		Test function of each channel
		WHEL	CODE	CXXX	Fixture code *code is "C050"
			CH01~CH30	XXXX(-128~127)	Motor Fix
4	TIME	LIFE	0000~9999(hours)		Fixture running time
		LAMP	0000~9999(hours)		Lamp running time
		CODE	CXXX	(Password is 038)	Clear Timer Password
		CLFE	ON/OFF		Clear fixture time
		CLMP	ON/OFF		Clear lamp time
5	EDIT	STEP	S–01 ~S–48		Steps of Program Run
		REC.	RE.XX		Auto Save Scene
		SC01 ~ SC48	C–01~C–30	0 1 XX(00~FFH) 3 0 XX(00~FFH)	Edit the channels of each scene
			TIME	XXXX(000.2s~199.8s)	Time for each scene
			CNIN	ON/OFF	Edit program via controller


NOdE - LAMP - SEt - AdJU - t INE - Ed It


NOdE - Addr
rUN
d ISP
NOdE - Addr - UALU - A00 1-A111111
SLAU - ON/OFF
EbOC - ON/OFF


NOdE - rUN - AUtO - AL ON
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SOUN - AL ON
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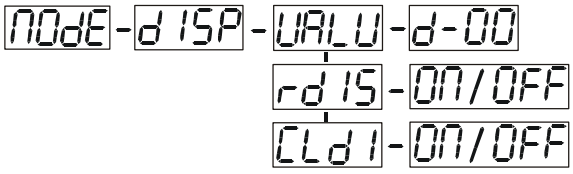
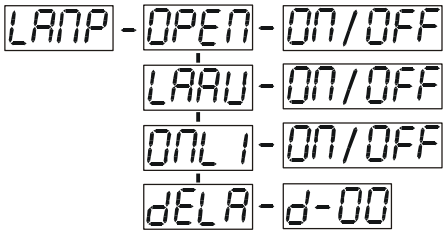
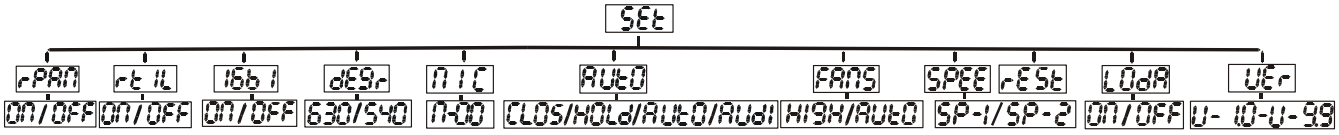
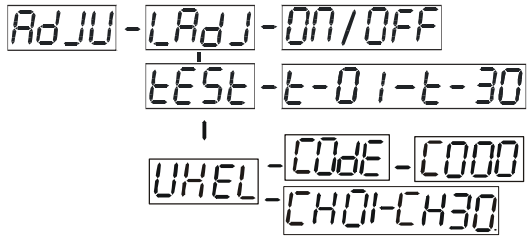
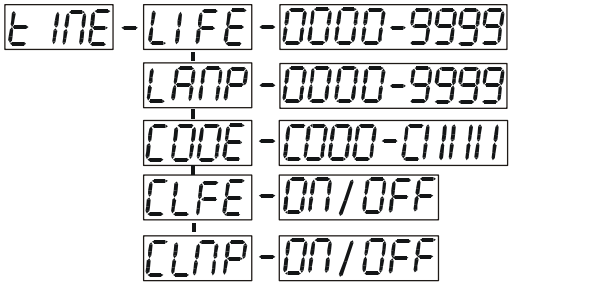
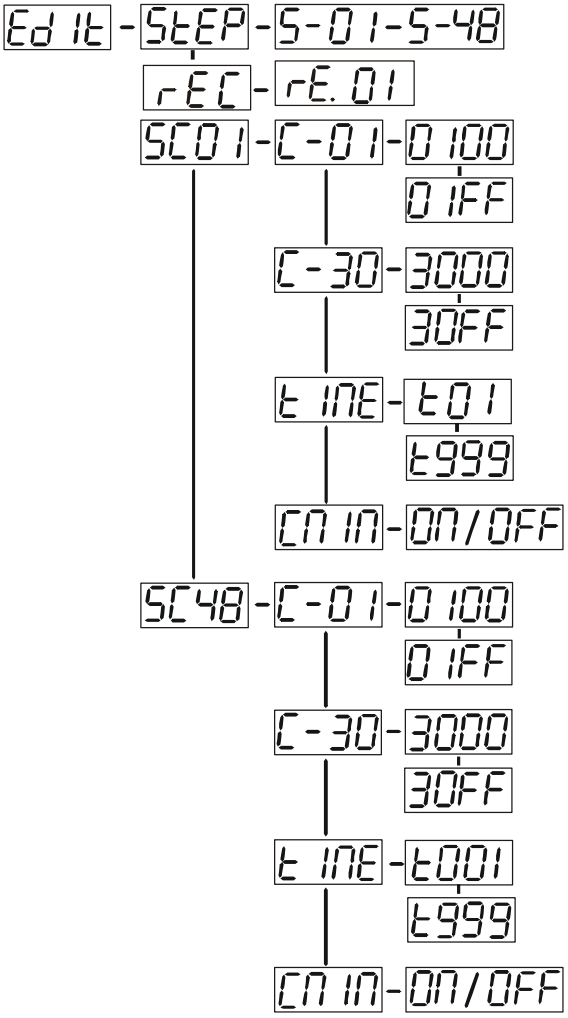

NOdE - d ISP - UALU - d-00
rd IS - ON/OFF
CLd 1 - ON/OFF


LAMP - OPEN - ON/OFF
LAAU - ON/OFF
ONL 1 - ON/OFF
dELA - d-00


SEt
rPAM
ON/OFF
rt IL
ON/OFF
16b 1
ON/OFF
dE9r
630/540
n I C
N-00
AUtO
CLOS/HOLd/AUtO/AUd1
FANS
HI9H/AUtO
SPEE
SP-1/SP-2
rESt
ON/OFF
LOdA
ON/OFF
UEr
U- 10-U-99


AdJU - LAdJ - ON/OFF
tESt - t-01-t-30
UHEL - COdE - C000
CH01-CH30


tIME - LIFE - 0000-9999
LAMP - 0000-9999
CODE - C000-C11111
CLFE - ON/OFF
CLMP - ON/OFF


Edit - StEP - S-01-S-48
rEC - rE.01
SC01 - C-01 - 0100
0IFF
C-30 - 3000
30FF
tIME - t01
t999
CMIN - ON/OFF
SC48 - C-01 - 0100
0IFF
C-30 - 3000
30FF
tIME - t001
t999
CMIN - ON/OFF

Channel Functions:

CHANNEL 1 : color wheel 8 colors plus white, color cycle or rainbow effect
CHANNEL 2 : cyan color mixing
CHANNEL 3 : magenta color mixing
CHANNEL 4 : yellow color mixing
CHANNEL 5 : pan movement (max. 630°)
CHANNEL 6 : tilt movement (max. 265°)
CHANNEL 7 : speed of pan/tilt movement, or different blackout selection by wheels
CHANNEL 8 : Effect wheel. The beam shaper
CHANNEL 9 : Linear Zoom
CHANNEL 10 : Strobe effect maximum 15 flashes per second or random strobe, dimming and shutter close/open control
CHANNEL 11 : Dimming effect 0-100% (only be activated while CHANNEL 10 is between position 32 –63 DMX **or** between position 96-127 **or** between position 160-191 **or** between position 224-255 values).
CHANNEL 12 : Speed of CMY and dimmer.
CHANNEL 13 : Color Macros. CMY and color wheel.
CHANNEL 14 : auto program control + lamp on, motor reset, lamp switch off
CHANNEL 15 : 16 bit pan movement (fine movement).
CHANNEL 16 : 16 bit tilt movement (fine movement).

DMX Channel Function & Values:

Channel 1 - Color Wheel :

0-13	Open / white
14-27	Color 1
28-41	Color 2
42-55	Color 3
56-69	Color 4
70-83	Color 5
84-97	Color 6
98-111	Color 7
112-127	Color 8
128-189	Forwards rainbow effect fast to slow
190-193	No rotation
194-255	Backwards rainbow effect slow to fast

Channel 2 - Cyan Color Wheel :

0-255	Cyan (0-white, 255-100% Cyan)

Channel 3 - Magenta Color Wheel :

0-255	Magenta (0-white, 255-100% magenta)

Channel 4 - Yellow Color Wheel :

0-255	Yellow (0-white, 255-100% Yellow)

Channel 5 - PAN movement 8bit :

Channel 6 - TILT movement 8bit :

Channel 7 - Speed pan/tilt movement:

0-225	max to min speed
226-235	blackout by movement
236-245	blackout by all wheel changing
246-255	no function

Channel 8 - Effect wheel (Beam Shaper).

0-70	Full Beam
71-230	Beam Shaper
231-255	Frost filter

Channel 9 - Zoom

0-255	Zoom 30 – Zoom 7

Channel 10 - Shutter, strobe:

0-31	Shutter closed
32-63	No function (shutter open)
64-95	Strobe effect slow to fast
96-127	No function (shutter open)
128-159	Pulse-effect in sequences
160-191	No function (shutter open)
192-223	Random strobe effect slow to fast
224-255	No function (shutter open)

Channel 11- Dimmer (intensity):

0-255	Intensity 0 to 100%

Channel 12 - Speed of CMY and Dimmer

0-255	Speed Maximum to Minimum

Channel 13- Color Macros – CMY and Color wheel

0-7	off
8-15	Macro 1
16-23	Macro 2
24-31	Macro 3
32-39	Macro 4
40-47	Macro 5
48-55	Macro 6
56-63	Macro 7
64-71	Macro 8
72-79	Macro 9
80-87	Macro 10
88-95	Macro 11
96-103	Macro 12
104-111	Macro 13
112-119	Macro 14
120-127	Macro 15
128-135	Macro 16
136-143	Macro 17
144-151	Macro 18
152-159	Macro 19
160-167	Macro 20
168-175	Macro 21
176-183	Macro 22
184-191	Macro 23
192-199	Macro 24
200-207	Macro 25
208-215	Macro 26
216-223	Macro 27
224-231	Macro 28
232-239	Macro 29
240-247	Macro 30
248-255	Random CMY

Channel 14– Lamp on/off, reset, Int. Prog.

0-19	color & gobo change normal
20-29	color change to any position
30-39	color & gobo change to any position
40-59	Lamp on
60-79	Lamp switch off
80-99	Motor reset
100-119	Internal program 1
120-139	Internal program 2
140-159	Internal program 3
160-179	Internal program 4
180-199	Internal program 5
200-219	Internal program 6
220-239	Internal program 7
240-255	Internal program 8
192-223	Pulse opening fast to slow
224-255	Pulse closing slow to fast

Channel 15 – Pan fine 16bit

Channel 16 –Tilt fine 16bit

ERROR MESSAGE

When you turn on **LXE700 Wash**, it will reset first. The display may show “XXer” while there are problems with one or more channels. “XX” stands for channel 1,2,3 and so on.
For example, when the display shows “01Er”, it means there is some error in channel1 (the color wheel. If there are errors on channel 1, channel 2, channel 5 at the same time, you may see the error message “01Er”, “02Er”,”05Er” flash repeatedly for 5 times, and then **LXE 700 Wash** will generate a second reset signal, This reset with literally reset all the stepper motors. Usually after the second reset the error messages disappear and the address number is displayed. Do not concern yourself if after the second reset that the address appear, it is perfectly alright that the first reset fails. It is not a sign of a problem.
If the error message remains after performing reset after the second time, then the functions with the error will not work but all other channels will more and the **LXE 700 Wash** will display its address number. The exception to this rule is if the fixture has 3 errors or more. If this is the case then the fixture will not function until the problem is sorted.

As an example of what to look for with an error message, here is the fault repair paradigm for **01Er:**

01Er:
(Color-wheel 1 error) This message will appear after the reset of **LXE 700 Wash** if the magnetic-indexing circuit malfunctions. This can mean a sensor failed or the magnet is missing or the color wheel stepping-motor is defective or the drive circuit on the main circuit card for the motor is defective or the one (or more) wires coming from the motor or sensor down to the circuit card is broken.
If any of the above happens then the color wheel will not be located in the default position after the reset.

CLEANING AND MAINTENANCE

The following points have to be considered during the inspection:
1) All screws, clamps etc. used to install **LXE 700 Wash** have to be tight and must not be corroded. Check them regularly because, remember, **LXE 700 Wash** **moves** and so it will have an effect on whatever you are using to hang the fixture.
2) There must not be any deformations on **LXE 700 Wash’s** housing and internal parts. Also check the points where **LXE 700 Wash** is installed including such things as ceiling mounting points, truss, half couplers, C clamps, safety cables and so on.
1) Mechanical moving parts must not show any traces of wearing and must rotate evenly.
2) The power input cable must not show any damage or material fatigue.

We recommend a frequent cleaning of the device. Please use a moist, lint- free cloth. Never use alcohol or solvents. Pay particular attention to all the fans and their vents. That is where dust and debris can accumulate. Accumulation of dust here can have a devastating effect on **LXE 700 Wash**. You must remove it regularly. Failure to do so will cause overheating inside **LXE 700 Wash.** Overheating causes premature failure of the lamp and other critical components. Do not use a air hose to clean the fans and vents. All you will do is bow the dust right into the fixture and all over the dicroic colors and gobos.
There are no serviceable parts inside **LXE700 Wash** except for the lamp. Please refer to the instructions under “Installation instructions” to change lamp.
Should you need any spare parts, please order genuine parts from your local dealer.

TECHNICAL SPECIFICATIONS

Power Supply :

- 120VAC,60Hz;

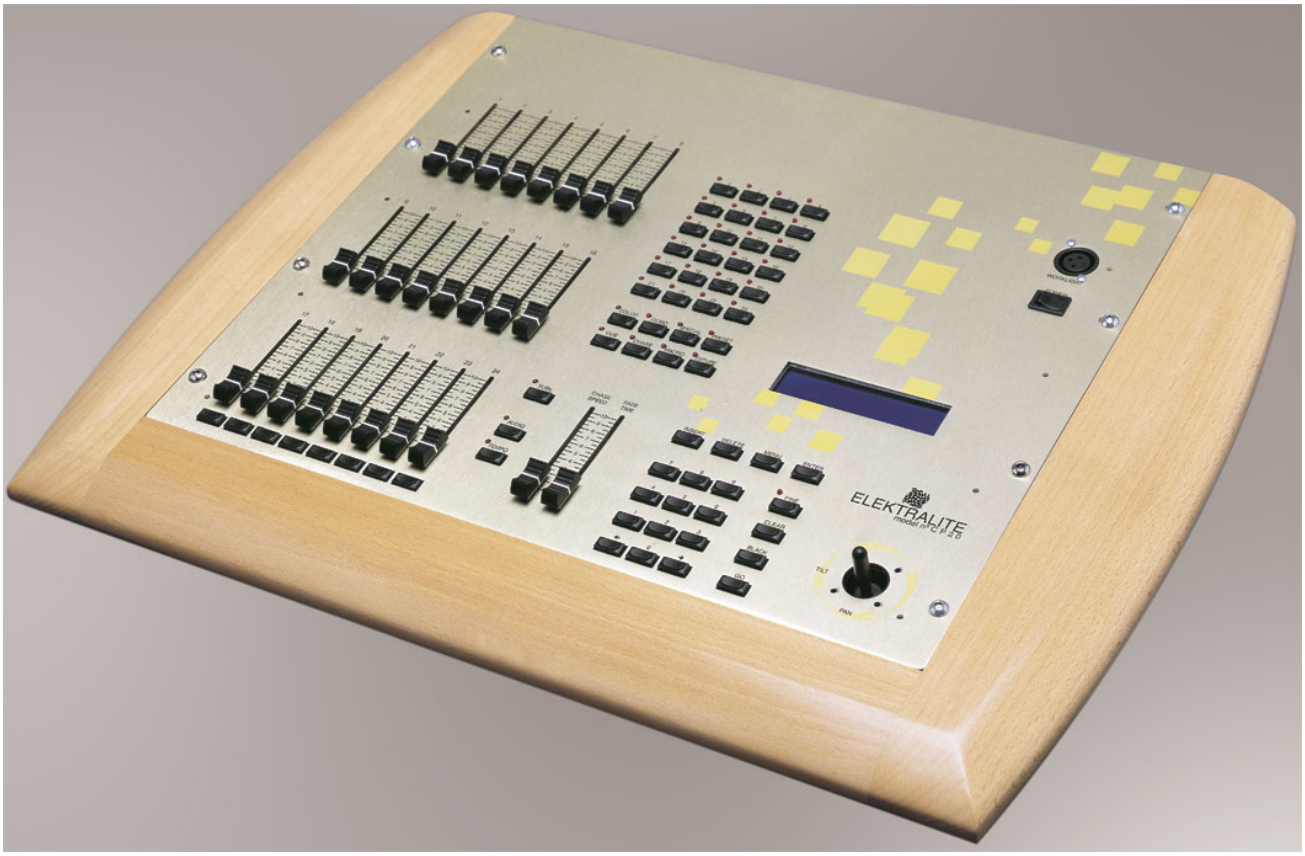
Power consumption : max. 800VI.
Lamp : HSR 700 (or MSR700/2)
Motors : 24 micro motors
Packing dimensions :30” x 22” x 18” (76.5mm x 55.5mm x 46.5mm)
Net weight : 75 pounds (34Kgs)

Please note, Elektralite is constantly improving their product range and we reserve the right to make changes without prior notice.

OTHER ELEKTRALITE PRODUCTS INCLUDE :

[Also check out our website at www.myelektralite.com]

CP-20XT CONTROLLER.



TurboFog + Fog Machine.

Turbohazer Haze Machine.